

**Changes in the Situation and Role of  
School Physical Education  
after the 1989-1990 Transition in Hungary**

PhD Theses

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## ***I. Introduction***

In the period following the transition of 1989-90, all levels of the Hungarian educational system went through fundamental changes. The well-accustomed system of the eight-grade primary school was modified, as well as the four-grade model of the secondary education based upon it. The newly established public education structure, the traditional four-grade grammar school, the newly-founded six-grade grammar school, the eight-grade grammar school, the revival of the twelve-grade school (6+6), the vocational schools, the vocational training schools and all kinds of mixed-type educational facilities made the well-accustomed, consistent and permeable structure of primary and secondary schooling chaotic. The circle of school maintainers was also radically transformed. The social prestige of schools is distributed on a wide range partly depending on their maintainers. The content element of the newly created public schooling structure had to be set. A lot of time passed until the introduction of the National Core Curriculum (NCC), however the renewal of content was still avoided. The school teachers, meanwhile, were working with the old content in a new structure.

The introduction of NCC was preceded by a wide-range social debate and a serious lack of understanding. Huge groups of teachers attended preparation courses, and myriads of teaching staffs worked on the construction of local curricula. Nevertheless, the situation that followed did not bring about the expected renewal, because public education as a whole could not be filled with the content suitable for the structure, and the changes had controversial effects.

The unsynchronised changes of the educational structure questioned the objectivity of permeability and the free choice of schooling. Students with better skills left the traditional eight-grade primary schools after finishing the sixth grade to educational institutions labelled as secondary.

From the point of view of school physical education, it is important to find a solution to this rather frequented problem, as the change in the school structure caused and even nowadays causes problems for physical education teachers. The preparation of teachers and the planning of the education process at some points (at the end of the sixth grade and the beginning of seventh grade in the new institution) meant a serious problem in several cases, which neither the institutions, nor the physical education teachers could prepare for. The physical adaptation of students is hindered by the flexibility of the process, the search for constancy in the teaching of physical education.

The other pole of the problem is given by the training of teachers, particularly the training of physical education teachers and teachers of primary schools. The adaptation of the Bologna process can only be recognised in formal traits of physical education teacher training, it lacks the renewal of the content element.

The Act LXXIX of 1993 on Public Education became the foundation of education; it prescribed the weekly number of lessons for each school type and each year, defined the content requirements, and obligated the schools operating in the public education system to write their Pedagogical Programs, and as an integral part of the program, the local curricula. This activity took several months to be completed by thousands of teachers, who had to realize that the previously existing compulsory central curricula had provided a comfortable situation, but one lacking reflexive or critical

elements. The drafting of the local curricula was carried out with serious difficulties, mostly with the adaptation of the sample curricula issued by the Ministry. Consequently, these new curricula were similarly centralized with few modifications taking little account of the specialities, qualifications of the given students, and of the personal and material conditions and the special requirements of the schools themselves.

At this point, a new challenge can be accounted for, which weakens the content criteria of physical education in schools. The output side of process control has weakened during the past decade. Physical education is one of the most important tools to develop the character of younger generations. In high-standard pedagogical work, setting the requirements is the determinant of success in the process of teaching. Amidst the several modifications of the Public Education Act, the status of physical education has reached a point where its almost sole aim is to make physical exercise and sport a favoured activity. The work of teachers and students alike is devalued by the reduced aim-setting which lacks requirements. Physical education and sport is performance-orientated by its nature. When the age group most sensible and in need of physical activity is not prepared by properly trained teachers for a healthy lifestyle and for physical culture, then in the higher grades the development of basic skills needs to be revisited, and performance-oriented knowledge and skills need to be created. I suggest that the two pedagogical deficiencies mentioned above are simultaneously present in today's Hungarian public education.

During the analysis of the relevant literature it became clear to me that although several papers have been published about the changes affecting physical education by prominent figures of pedagogy and sport sciences,

public education has not been examined from the viewpoint of physical education. This hiatus is the reason behind my choice of the subject and indicates its originality. As I saw it, the fitting of physical education as a specific subject into the cross-section of public education, and its renewal efforts, which are not guided by the professionals, resulted in peculiar changes. The legal amendments and the constant renewal efforts of the NCC defined the pedagogical-teaching work of the recent years, often aggravating the work of practicing teachers and not least, the life of students. I considered it to be an axiom that physical education is only partly a subject among the range of school subjects during my research. Moreover, from the point of view of teaching and education it is more complete and comprehensive, since it tries to improve the whole personality of the students through its physical and mental training.

## ***II. Objectives***

The *fundamental objective* of my paper is to explore the process of the renewal of the content and the position of school physical education after the 1989-1990 political and economic transition on a wide spectrum. Furthermore, my aim is to *examine* the adequate content components of the different areas related to physical education (Education Act, NCC, Framework Curriculum, Act on Higher Education, teacher-training, Pedagogical Program, local curricula, competence-based education), and to *analyse* and comprehensively *describe* the position and the content-changes of physical education, and the restructuring in its system of requirements, within the scope of public education.

In order to realize my objectives, I conducted an independent empirical research. During my research, based on the opinions of school principals

and physical education teachers, I was looking for answers for the following research questions:

- How did the Education Act modernize the Hungarian public education?
  - To what extent did the changes of the Education Act influence the content and structural status of public education?
  - In what ways did the educational content prescribed in the NCC influence the content and structural elements of schools?
  - What duties did the modifications of NCC implement on teachers?
  - In what ways did the changes of educational aims of physical education influence the students' physical and mental-hygiene state?
  - In what ways does the status of the educational infrastructure affect the fulfilment of school physical education aims?
- How did the content-renewal of education follow the structural changes taking place in higher education?
  - What consequences did the introduction of the Bologna process have on Hungarian higher education?
  - How did teacher training change after the introduction of the Bologna Process?
  - Does the content renewal of physical education teacher training help or hinder the preparation of teachers entering public education?

### ***III. Methods***

In order to explore the given areas, several research methods were applied. My research was primarily carried out with survey method in the 2008/2009 academic year. The research was localized on all primary and secondary educational institutions operating in the country. A total number of 5981

institutions were registered in the database of the Public Education Information Office of the Educational Authority in 2008. The research was designed to target the total population. In the research, the participation of all schools registered in public education was ensured.

Data collection was carried out with the help of a structured questionnaire sent to the 5981 schools operating in the public education system via e-mail. The questionnaires were filled by the leading physical education teachers after consultations with their colleagues and the school management. The number of returned questionnaires which were appropriately filled was 1146, that is 19.19% of the research population.

Data were processed with the help of complex statistical methods using the Microsoft Excel and the SPSS for Windows programs. The quantitative data obtained were nominal and ordinal, therefore, during their analysis descriptive statistics and chi-square tests were used.

As a supplementary method, in-depth interviews were also carried out with competent key actors (primary and secondary school P.E. teachers and headmasters (N=40)) who can contribute to the better understanding of teaching physical education and its organizational framework, and the interpretation of the quantitative data with their opinion. The guideline of the in-depth interviews was composed based on the experience of a pilot study.

As a further supplementary method, the analysis of relevant documents (related acts of legislation, ministerial orders, legal regulations and educational documents) was carried out. During this, I focused on the structural and content changes of education and assessed the short and long-term impact if the documents on physical education, physical education teacher training and on the pupils and students participating in education.

#### ***IV. Results***

Based on the examination of public education management and content activity system of the past two decades following the transition of 1989-1990, my main research results can be summarised as follows.

The changes of public education also meant effects on the content; the school system was transformed three times owing to the structural changes triggered by the legislative measures. The first change was introduced after the 1989-90 transition, when the previously existing rigid 8 plus 4-year school structure was transformed radically. The flexibility of hierarchy and permeability created a feeling of uncertainty on the part of teachers, parents and students alike. During the second change, a relatively stabilized period followed, if in the case of pedagogical processes two years can be regarded as stability, the malfunctioning school types were consolidated into the well-working structures. The third change finished in the examined period with the creation of uniform and combined school types.

These changes had particularly strong effects on the teaching of physical education, because *the decision makers literally neglected the obvious fact* that during students' transition from one school-type to another, they do not only have to possess the theoretical knowledge needed for the fulfilment of physical education requisites, but physical competences and skills as well.

The differences between the types of maintainers also defined the operational opportunities of particular school-types and particular schools. As an unwanted result of the democratic development, local authorities saw the unification and termination of schools as a possible solution for their financial problems. As a result of this behaviour, several schools have been terminated during the past twenty years. In parallel, several new municipal and otherwise financed schools were founded. All changes that affected or

changed the stability, constancy and continuity of the school, created disharmony in the content-based work and the process of teaching-learning, and unsecured the personality development of children.

The effect-mechanism of content changes had a decisive impact on the standard of teaching and education in the school. During the permanent amendments in the content of the curricula, the unity of the goal, the terminal goal, the task and the requirements has changed as well; the requirements became softer, more general and less measurable.

The abolishment of marks and failure in the elementary grades broke the consonance of requirements and assessment. Although the importance of textual evaluation is admitted, the lack of daily feedback is apparent. In my research, the basic pedagogical principle of the students' need for immediate evaluation and feedback in the process of education was underlined.

The results also indicate that the extension of the compulsory age for public education to 18 causes serious pedagogical concerns in primary and secondary institutions alike. The relationship between the labour market and the employment of youth could not be discussed here, but it can be assumed that from the aspect of teachers and the management of schools, the obligation to keep over-aged students in the schools definitely means a problem. During the in-depth interviews, physical education teachers emphasised the hardship of keeping over-aged students motivated and occupied during the physical education lessons. This is especially so in those secondary education facilities where even nowadays co-educated physical education lessons are held.

The research results clearly indicate that the professional stakeholders of education were not included in the creative work of setting the content

requirements of public education. All along the modernization process, the several modifications of the NCC, the influence of specialists of central education management, pedagogy and curriculum-theory was predominant. At the same time, the practical implementation of the content work was left to the teachers working in schools. According to the interviewees, the most important characteristics of the national core curriculum (1995) were not concordantly perceived as favourable: the regulations independent of school-types, the definition of the fields of knowledge, the introduction of requirements within pedagogical period-borders, the definition of cross-subject fields, and the setting of minimum and maximum limits instead of a concrete number of compulsory lessons.

According to the findings, professionals were not enthusiastic either, that the framework curricula (2000) tried to limit the over-estimated curricular freedom of the schools, and tried to shift the emphasis on the safeguarding of the integrity and permeability of the system. The new regulation returned to the traditional description of the subjects and defined the (minimal) compulsory number of lessons. The Act XXI of 2002 terminated the framework curricula that is, the obligation to conform the local curriculum to the framework curriculum. The second National Core Curriculum, presented in 2003, was a classical core curriculum, which defined the general national aims of public education, the general fields of knowledge (the so-called fields of knowledge and the contents overlapping these fields), the division of content-phases of public education (4+2+2+4) and the development duties to be implemented in the particular phases. The fundamental changes accompanying this regulation both in the structure of schools and in the content regulations were usually neither welcomed by school principals nor by physical education teachers. They were also

reluctant to follow further amendments, namely the new directives of the 2007 third National Core Curriculum which built key competences into the curricula and defined highlighted development fields not ranked among the key competences.

According to the participants in my research, the emphasis should have drifted between process control and output control towards the latter during the whole era, but this was neither reflected in the curriculum or school structure, nor in the development of the devices of output control.

The Education Act of 1993 increased the importance of the final exam by setting it as compulsory to finish secondary education. The Public Education Act of 1993 ordered the formation of such system of content control, wherein a relative balance of the input and output fields occurred. The concept of a unified, standardized two-level final exam system was introduced in 1995. It was enforced in 2007, but it again set the application for the final exam as an individual responsibility. The higher stage of the two-level final exam system was meant to serve for the control of the input side of higher educational facilities. However, in practice, neither higher, nor secondary educational institutions treated it in accordance with the objectives of educational policy, including the final exam in physical education. (The new amendment is currently under elaboration.)

According to my findings, the professionals are convinced that the monitoring of objectives related to content requirements of applied educational technologies and the feedback of the relevant information is a fundamental element of the pedagogical process. They object to the fact that this function is completely absent in the Hungarian educational system. In the process of monitoring the exam system can play an exceptional role. Although the reform and introduction of the final exam was carried out, due

to its unsynchronised nature with the basics of the curriculum and the lack of standardization, the final exam is completely inapt for adequate monitoring of the teaching and learning process. The results of the PISA-surveys are continuously fed back to the institutions, but the implementation of these findings into the content-control of the process is still missing. Professional control and the management of accountability are underdeveloped, weak and work within undefined circumstances. The inspection by the maintainers is focused on the financial, and not on the content activity. The current system of quality control is inadequate to fulfil its role. The findings of the research suggest that in the present public education system this complex set of problems renders the effectiveness and the institutional process of teaching-learning both for the teachers and for the “essential protagonists the public education”, that is the students.

As the teachers participating in the research admitted, in the period after the 1989-1990 transition, the work of teachers was not only hindered by the structural changes in accordance with educational legislation and the permanent amendment of documents, but the lack of consistency in pedagogical work as well. The preparation and adaptation of local pedagogical programs and curriculum was not without difficulties, as practising teachers are not experts on curricular theory. The preparation of the programs was preceded by myriads of different types of preparation-trainings. Since both the Education Act and the NCC were amended several times during the examined period of my research, the teachers’ society was forced to rewrite the local documents several times as well.

Furthermore, the participants named it a negative consequence of the constant amendments that the enforcement of quality control in education demanded a similar amount of creative work for them. This also involves

preparatory activities, and the constant need for revision. (They peripherally mentioned the financial segment, which did not help the effective work of schools.) The interviewees were also concerned about the lack of external, professional evaluation of the pedagogical work. More precisely that, in contrast to the previous decades, and in connection with the changes in the system of further professional education, neither the daily activities, nor the results of development are measured in present day public education. The stakeholders did not analyse the positive or negative characteristics of the professional supervisory board present before the transition of 1989-1990, but mentioned its lack as a negative, claiming that there is no outer control in present-day public education. The lack of feedback on the teacher's work can lead to a shift in the values of pedagogical activity.

Theoretically, feedback can come from different levels: headmaster – colleagues – students –parents can all give feedback, and can pass value judgement within a school. According to my research findings, even inner control does not work efficiently in a considerable number of schools. Headmasters, deputy headmasters (and colleagues teaching other subjects) do not visit the physical education lessons regularly. As a result, their value judgement about the profession is subjective. This is also a disadvantage, as the management of the school decides on the production of material and personal conditions for physical education. The IMIP was also designed to change the aforementioned situation. The physical education teachers involved in the research told during the in-depth interviews, that the control of students, parents and school had a positive effect on the judgement of their work. Within the framework of the new quality control program, the evaluation of the teacher's work has to be carried out in every two years. Since the introduction of the above mentioned program, principals have

visited physical education lessons even in schools where they had not done so even once in the past eighteen years. In connection with quality control, some claimed it to be positive that the students can also evaluate the teacher's work. They think that this inspires both the teacher and the student for quality progress. At the same time, several shared the opinion that the students of primary schools are not old enough to objectively judge the professional competence and work of their teachers.

According to the research results, physical education teachers are still concerned that only the national surveys serve as a form of outer feedback, otherwise only the final exam holds some controlling value but it does not give adequate help in process control. A common opinion is that there is a need for stronger inner control, and there is a need for the establishment a new professional supervisory board.

The research findings suggest that physical education is a subject that theoretically serves as a basic element of the educational-pedagogical work in school, but has not been at its rightful position in the past two decades. This role change can also be recognized in the curricular structure of the NCC and in the process of introducing competence-based education. The NCC of 1999 strictly listed and contained the subject requisites, closely connecting and relating the fields of physical and mental health, healthy physical development, enhancement of physical culture and motor competences. In the 2003 version of NCC, the directive for the understanding of requirements is stated as the consideration of the values of standards based on national and local measurements, and the continuation of local traditions. The 2003 version of the NCC lists the activity forms and sports which were already listed in the 1999 version of the NCC, but does not attach any requisites for development or minimum requirements.

Nevertheless, in the formation of the teaching material it separately lists teaching of the theoretical knowledge of activity forms and the adequate use of particular characteristics and drives.

The majority of the research-participants disapproved of the fact that the 2007 version of the NCC further weakened the content and ethical elements of school physical education. Special importance has been placed on playful organisation forms, which, based on the participation of the student, are aimed to raise interest, to raise problems, to find solutions, and to acquire knowledge needed for the development of learning skills. Most of the physical education teachers disagree with that the need to increase performance can only be latently present in school physical education.

I examined the rather short, hardly assessable time period of the introduction of the Bologna Process in Hungarian higher education in the interaction of teacher training and public education. I covered the perceptions about the change of content in teacher training, more accurately in the case of physical education teacher training. According to higher education experts, the present Hungarian higher education structure still shows signs of insecurity and immaturity. During the two decades that passed since the 1989-1990 transition, the Hungarian higher education has gone through fundamental changes both content- and structure-wise. The changes of content did not leave old traditions and acquirable cultural contents unaltered. The practical implementations do not seem promising. Present-day higher education can be characterized by the ongoing structural change and the immaturity of the educational contents. The professionals asked claim that the biggest problem is that it cannot be predicted, who and with what preparation comes out of higher education, and how they will find their place in the not-the-least unified system of public education.

During my research I became acquainted with the views of school leadership and physical education teachers about the controversial state of present-day Hungarian public education. As the anomalies present in higher education cannot be called minor, many of them are concerned about the fact that not the right quality and quantity of public education content is present in the curricular materials of higher education. Namely, it is an open question to what extent and depth the students of today's higher education, who are preparing to be teachers, receive the structural and content information connected to public education. They find it doubtful whether, apart from their specific subjects, these students get the possibility to acquire information about the NCC, about the preparation of curricula, about quality control and competence contents. Several of them doubt that today's higher education students will be capable of fulfilling the present aims of public education as teachers, and will be able to provide active help in the personality development of students.

## ***V. Discussion***

In the two decades following the 1989-1990 transition, educational politics tried to modernise a stabile, somewhat conservative school system. By summarising my research findings, it can be clearly stated that the modernisation attempts carried out in public education were not successful, did not serve to preserve the basic values of Hungarian public education, and could not present solutions to the challenges of the 21<sup>st</sup> century. The teaching of physical education also fell as a victim to this process. The constant changes, the insecurity and the impossibility of planning that became dominant in public education were the principal causes of the dysfunctional results. The second Hungarian Republic had seven prime

ministers and accordingly, seven governments since the transition of 1989-1990. The governance of education was carried out by eight ministers during the examined period. The structure of the ministry governing education changed three times. The changes of the minister (and its staff) did not necessarily involve changes in content, but the individual ambitions probably influenced the efforts for change in particular ministries. Not even one concept got the possibility to fully unfold, because after a short time period, different ideas became dominant, and the educational institutions had to work following different concepts.

The adaptation of the Bologna Process was brought about with the Hungary's EU accession, but its introduction and the re-structuring of higher education could have been carried out in a more relaxed manner. Common sense and my research findings both support the idea that the introduction of the system would have needed much more time. The unreasonably hurried implementation of the system endangered the content element of teacher training.

There is scientific evidence that pedagogical changes cannot be successfully introduced without experimental trials and positive feedback. Yet, this is what happened in this case. Hungarian higher education is currently battling the negative effects of the hasty measures, and as a result, public education is affected, too.

Moreover, my research findings also prove that the ministry decision that introduced professional-based education without delay was lacking any professional insight and was hasty. Teachers with a primary school teacher's qualification can teach physical education up to grade six without any further professional education, whereas physical education teachers with a university degree can only teach in the lower grades of primary

schools after a 120-hour further professional training. Practicing physical education teachers and headmasters also drew up the professional and pedagogical effect-mechanism of this during my research.

The reputation of physical education as a subject and physical education teachers is harmed by the ill-advised educational policies and ministry decisions because of the problems with primary and secondary feedback in public education. The evaluation of the physical education teachers' work depends on the personal insights of the headmaster, and this insight is subjective in many cases. The effects of this on the teachers' work are unpredictable.

## ***VI. Conclusion***

My hypothesis according to which the present system and content of physical education teacher training makes it impossible for conditional training to appear in public education as the 7<sup>th</sup> basic competence or in an ideal case, to appear in all basic competences horizontally, can be considered *proven* according to my research findings. The present state and content diversity of the higher education reflects an uncertainty and raises questions among university leaders and practicing teachers alike about the contents and effectiveness of teacher training. The 7<sup>th</sup> basic competence did not integrate into the set of basic competences in public education; physical education (in this case, conditional training) is only listed as a stressed objective at the end of the list. The fulfilment of this objective solely depends on the quality of the physical education teachers' work and the adequate preparatory work of teacher training; the system itself does not allow the practical implementation of the efforts.

My hypothesis according to which the hasty introduction of the Bologna Process in higher education without full knowledge about all of its different levels only prolongs the introduction and acceptance of conditional training into the contents of public education can also be considered *proven*. Although the introduction of the Bologna Process has already been carried out, it did not assimilate into the Hungarian higher education. The conference of rectors dealing with the topic also highlighted the anomalies. The framework of the two-level physical education teacher training (BSc and MSc) has already been drawn up, but the contents of all levels of the curricula are debated even nowadays.

My hypothesis according to which the massive appearance of primary school teachers teaching physical education from grade one to six in public education, instead of qualified physical education teachers only weakens the children's development of conditional and coordination skills and adds to the decrease in the pace of the youth's physical development can only be partly accepted. This hypothesis can only be proven by the fact that among the participants of my research there were primary school teachers who attended special physical-education training during their studies, teaching solely physical education up to grade six,. I do not assume any professional inability from their side, but in parallel with the appreciation of some positive signs I must voice my doubts about the method. Even though that today the effect of the concerning act cannot be measured adequately, it can be suspected that after one generation has completed their studies, meaning at the time of today's first graders entering secondary education, we must fall back on measuring the students' conditional and coordination abilities.

My hypothesis according to which the concept in pedagogy that considers its only aim to be the endearment of sports with the students will have dysfunctional results according to the views of physical education teachers, because it weakens the conditional skills of children and adds to further deterioration in the health condition of the youth was *proven*. I could clearly see that most of the physical education teachers disagree with the order of the NCC currently in force that the development of conditional abilities of the students can only serve as a source of joy. In most physical education curricula, the requisite for a performance-based proof of the acquired activities is missing. They identify with the idea that the endearment of sports and its adaptation during the students' whole life should appear among the subject's aims, but its exclusivity and neglecting the development of individual performance are considered to be harmful.

Finally, my hypothesis according to which the backwardness of the infrastructural conditions of physical education in Hungary cannot be blamed for the crisis of the subject in public education, although these conditions cannot the least be called as ideal was *proven right*. The deceleration (or halt at some places) of infrastructural development is a real social problem, but it is not the reason for the value-crisis. Physical education and health preservation both appear as less important ideas in schools nowadays. The otherwise already existing crisis of public education also affects physical education, with all of its collateral disadvantages.

Today, when it is a key issue how much learning can expand in space and time, and thereby, through lifelong learning, become the engine of sustainable quality development, education is to take the role of founding

this process. Theoretically, physical education and sports play an important role within this, because society needs able-bodied, productive people for the lifelong process of learning and working. Public education is in a great need of pedagogically and professionally well-trained teachers. Being aware of the content changes of public education and the problems of higher education, the co-ordination of the two educational fields is hardly imaginable.

With the examination of relevant legislative measures and pedagogical documents, and the effect-mechanism of public education and higher education on each other, it can certainly be stated that the position of physical education, its role in public education and consequently in the value-system of the growing generations has devalued, the value of quality knowledge has decreased in the past twenty years.

It is advisable to:

- Reach some stability and increase in quality in public education.
- Send only well-prepared, well-trained and motivated professionals for the public education sector from higher education.
- Carry out all regulations of the act on education and, by providing the material and personnel requirements of regular physical exercise, to introduce everyday physical training in all Hungarian schools within the framework of physical education with renewed content.

## ***VII. Publications by the author related to the topic of the thesis***

1. Elbert G. (2000). *A Magyar Sport Fejlesztési terve*. Budapest, Nemzeti Sportszövetség. 73p

2. Elbert G. (2004). Magyarország legyen sportnemzet, Az NSSZ hasznos eszköz. *Magyar Edző* 1, 10.
3. Elbert G. (2008). Mi hiányzik a kompetencia alapú oktatásból a magyar közoktatásban? *Magyar Sporttudományi Szemle* 1, 24-25.
4. Elbert G. (2008). A sport szerepe a megújuló társadalomban. In Bognár J. (szerk.) VI. Országos Sporttudományos Kongresszus, 1. kötet. Budapest, MSTT. 144.
5. Elbert G.(2010). The Effect of the Amendments of the Public Education Act on the School Activity of the Physical Education Teachers. *Physical Culture and Sport Studies and Research* 46. 123-129.
6. Elbert G. (2010). The prestige of physical education and physical education teachers in Hungarian public education in the first decade of the 21st century. *Physical Education and Sport* 2. (megjelenés alatt)
7. Elbert G. (2010). Testnevelés és európai kulcskompetenciák a közoktatásban. *Magyar Sporttudományi Szemle, Budapest, (megjelenés alatt – igazolás mellékelve)*

### **VIII. Article(s) where the candidate is a secondary author**

1. Bukta Zsuzsanna-Elbert Gábor-Rózsaliгети László (2002). Az önkormányzatok és a sport egy felmérés tükrében. Budapest, Magyar Közigazgatás. 52. 4. 212-219.